



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604**

**SUBJECT:** CLEAN AIR ACT INSPECTION REPORT  
Engineered Glass Products, LLC, Chicago, Illinois

**FROM:** Karina Kuc, Environmental Engineer  
AECAB (IL/IN)

**THRU:** Nathan Frank, Section Supervisor  
AECAB (IL/IN)

**TO:** File

---

**BASIC INFORMATION**

**Facility Name:** Engineered Glass Products, LLC

**Facility Location:** 2857 S Halsted Street, Chicago, IL 60608

**Date of Inspection:** September 21, 2022

**EPA Inspector(s):**

1. Karina Kuc, Environmental Engineer
2. Laura Neudorf, Environmental Engineer

**Other Attendees:**

1. Chris Johl, Plant Manager, EuropTec
2. Meg Garakani, Program Manager, Guardian Glass
3. Steven Wilson, Chief Operations Officer, Advanced Industrial Resources, Inc.
4. Greg Essing, Project Manager, Advanced Industrial Resources, Inc.

**Contact Email Address:** [cjohl@egp-europtec.com](mailto:cjohl@egp-europtec.com)

**Purpose of Inspection:** to observe the performance test for the catalytic thermal oxidizer (CTO) required by the US EPA Information Request dated March 16, 2022

**Facility Type:** Glass coating

**Regulations Central to Inspection:** Illinois State Implementation Plan (SIP) provisions and the Federally Enforceable State Operating Permit (FESOP)

**Arrival Time:** 9:20 AM

**Departure Time:** 2:45 PM

**Inspection Type:**

- ☐ Unannounced Inspection
- ☒ Announced Inspection

**OPENING CONFERENCE**

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☐ Provided Small Business Resource Information Sheet
- ☒ Small Business Resource Information Sheet not provided. Reason: previously provided
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Engineered Glass Products staff unless otherwise noted.

**Company Ownership:** In June 2022, EuropTec purchased Engineered Glass Products (EGP or the facility) from Guardian. The facility continues to do business as Engineered Glass Products. The purchase did not result in any operational changes.

**Process Description:** The EGP applies a specialty coating to glass to produce low-emissivity glass. The company purchases large pieces of clear, soda lime glass and cuts them to size. The pieces of glass are heated to approximately 1100 °F, then a proprietary coating, containing a Hazardous Air Pollutant (HAP) is sprayed on. Particulates are routed to a wet scrubber then to a CTO. The glass is then reheated to 1200 °F and immediately cooled with air. The glass is then packed for shipment.

**Staff Interview:** The Site Specific Test Protocol, dated May 31, 2022 (the Protocol) proposed three 3-hour runs using Method 25A at the inlet and outlet of the CTO to determine volatile organic compound (VOC) concentrations and Methods 204A and 311 for grab samples of HAP-containing coating to determine VOC liquid input. According to the Protocol, “[t]he determined VOC liquid input feed rate will be compared to the VOCs measured at the [Air Pollution Control] Inlet duct to determine the capture efficiency”.

EPA arrived on site and the stack testing consultant, Advanced Industrial Resources, Inc. (AIR), was calibrating the equipment. Chris Johl stated that the facility was running at maximum production and the CTO burner setpoint was at 650 °F. AIR staff stated that they had to use a heated filter because they were having issues with clogging. The first run started at about 11:30 AM but had to be paused at about 12:10 PM due to the inlet sampling line, which is located before the scrubber, getting clogged.

EGP and AIR representatives asked EPA to deviate from the Protocol. Due to the high amount of particulate in the inlet sampling line, filters had to be changed out frequently and AIR did not have enough filters for three 3-hour runs. EGP and AIR proposed to conduct three 3-hour runs for Methods 204A and 311 but to decrease the Method 25A run to a 1-hour run within each 3-

hour run. EPA gave conditional approval for EGP and AIR's proposed deviation and reserved the right to require a retest if problems continue or if problems are identified in the stack test report. The stack test resumed at about 2:18 PM.

### **TOUR INFORMATION**

**EPA Tour of the Facility:** Yes

**Data Collected and Observations:** EPA utilized the Forward Looking Infrared (FLIR) camera with optical gas imaging capability. At the start of the first run, EPA observed that gas was venting from the inlet sampling probe location and notified AIR. AIR stuffed a garbage bag into the hole to try to get a better seal; however, EPA continued to observe air venting from the inlet sampling probe location (see Appendix B, videos 1, 2, 3, and 5).

EPA observed the pressure gauges for the venturi scrubber and mist eliminator while stack testing was ongoing. The gauge for the venturi scrubber inlet read 0 inches of water (see Appendix A, images 4 and 5).

EPA went on the roof of the facility to observe the CTO stack. Emissions were observed exiting the CTO stack (see Appendix B, video 8). Emissions were observed emitting from the row of open windows on top of the production area roof (see Appendix B, video 9).

At about 2:30 PM, EPA observed AIR collect one round of samples from the spray coating line by opening a valve and allowing the liquid to freely pour from the line into two amber 250-milliliter bottles then the bottles were screwed closed and stored in a beverage cooler with ice for Method 204A analysis.

**Photos and/or Videos:** were taken during the inspection.

**Field Measurements:** were not taken during this inspection.

### **CLOSING CONFERENCE**

☒ Provided U.S. EPA point of contact to the facility

**Concerns:** Gas was emitting from the sampling probe inlet location. Possible emissions were observed to be emitting from the row of open windows on top of the roof.

### **DIGITAL SIGNATURES**

Report Author: \_\_\_\_\_

Section Supervisor: \_\_\_\_\_

**Facility Name:** Engineered Glass Products

**Facility Location:** 2857 S. Halsted St, Chicago, IL 60608

**Date of Inspection:** September 21, 2022

**APPENDICES AND ATTACHMENTS**

Appendix A: Digital Image Log

Appendix B: Digital Video Log

**Facility Name:** Engineered Glass Products  
**Facility Location:** 2857 S. Halsted St, Chicago, IL 60608  
**Date of Inspection:** September 21, 2022

**APPENDIX A: DIGITAL IMAGE LOG**

<b>1. Inspector Name:</b> Laura Neudorf	<b>2. Archival Record Location:</b> Region 5 Electronic Record Center
---	---

<b>Image Number</b>	<b>File Name</b>	<b>*Date and Time (Central time)</b>	<b>Description of Image</b>
1	IMG_0199.JPG	9/21/2022 9:41	Calibration information
2	IMG_0201.JPG	9/21/2022 11:30	Inlet and outlet VOC concentrations
3	IMG_0202.JPG	9/21/2022 11:30	Inlet and outlet VOC concentrations
4	IMG_0203.JPG	9/21/2022 11:30	Pressure gauges for venturi scrubber and mist eliminator
5	IMG_0204.JPG	9/21/2022 11:31	Pressure gauges for venturi scrubber and mist eliminator
6	IMG_0206.JPG	9/21/2022 11:49	CTO outlet stack
7	IMG_0207.JPG	9/21/2022 11:50	CTO outlet stack
8	IMG_0208.JPG	9/21/2022 14:29	Spray coating line sample location

Note: \*Photo metadata reflects incorrect month. Table has been corrected.

**Facility Name:** Engineered Glass Products  
**Facility Location:** 2857 S. Halsted St, Chicago, IL 60608  
**Date of Inspection:** September 21, 2022

**APPENDIX B: DIGITAL VIDEO LOG**

<b>1. Inspector Name:</b> Karina Kuc and Laura Neudorf	<b>2. Archival Record Location:</b> Region 5 Electronic Record Center
--	---

<b>Video Number</b>	<b>File Name</b>	<b>*Date and Time (Central time)</b>	<b>Description of Video</b>
1	MVI_0200.MP4	9/21/2022 11:22	Video of gas escaping around inlet sampling probe location before being plugged
2	MOV_0526.mp4	9/21/2022 11:23	FLIR video of coating line and inlet sampling probe location
3	MOV_0527.mp4	9/21/2022 11:26	FLIR video of coating line and inlet sampling probe location after hole was plugged with trash bag
4	MOV_0528.mp4	9/21/2022 11:32	FLIR video of duct leading to scrubber and coating booth
5	MVI_0205.MP4	9/21/2022 11:33	Video of gas escaping around inlet sampling probe location before after being plugged with garbage bag
6	MOV_0529.mp4	9/21/2022 11:36	FLIR video of coating booth
7	MOV_0530.mp4	9/21/2022 11:49	Extraneous
8	MOV_0531.mp4	9/21/2022 11:51	FLIR video of CTO stack
9	MOV_0532.mp4	9/21/2022 11:53	FLIR video of emissions from windows on top of the facility roof

Note: \*Video metadata reflects incorrect month and time. Table has been corrected.